



PHARMA DEVILS

QUALITY CONTROL DEPARTMENT

GENERAL TESTING PROCEDURE

Title: 0.1 M Ceric Ammonium Sulphate

SOP No.:		Department :	QC
Effective Date :		Review Date :	
Revision No.:	00	Page No.:	1 of 3
Supersede SOP No.:	Nil		

1.0 OBJECTIVE:

- 1.1 To lay down a procedure for the preparation and standardisation of 0.1 M Ceric Ammonium Sulphate.

2.0 SCOPE:

- 2.1 It is applicable for the estimation of Raw material, bulk product, intermediate product and finish products.

3.0 RESPONSIBILITY:

- 3.1 Analyst / Officer / Executive follow the procedure.
3.2 Head-QC are responsible for effective implementation of this SOP.

4.0 REFERENCE:

- 4.1 BP

5.0 DEFINITION:

- 5.1 Molarity is the number of mole of substance that are present in the given Volume of the solution.

6.0 PROCEDURE:

6.1 Material and Equipment:

- 6.1.1 Volumetric flask 1000 ml, Ceric ammonium sulphate, Sulphuric acid, Ferrous ethylenediammonium conical flask, record book etc.

6.2 Preparation:

- 6.2.1 A mixture of 30.0 ml Sulphuric acid and 500 ml of water in a 1000 ml volumetric flask, dissolve 65 g of ceric ammonium sulphate, the aid of gentle heat, cool, filter the solution, if turbid, and dilute to 1000 ml.



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6.3 Standardisation:

6.3.1 Dissolve 0.300 g of ferrous ethylenediammonium sulfate in 50 mL of a diluted solution of sulfuric acid (49 g/l H₂SO₄). Titrate with the ammonium and cerium sulfate solution, determining the end-point potentiometrically or using 0.1 mL of ferroin as indicator.

Each ml of 0.1 M ceric ammonium sulphate is equivalent to 0.03820 g of Fe (C₂H₁₀N₂) (SO₄)₂·4H₂O.

Calculation:

$$\text{Molarity (M)} = \frac{\text{Weight of primary std in gm} \times 0.1\text{M} \times \text{Potency of Primary std.}}{\text{Consume vol.} \times 0.03820 \text{ gm} \times 100}$$

1.0 Annexures:

1.1 Annexure-I: Molarity Calculation format of Volumetric Solution 0.1 M Ceric Ammonium Sulphate

2.0 Distribution:

2.1 Display copy 1: Instrument Lab

3.0 Abbreviation:

SOP : Standard Operating Procedure

QC : Quality Control laboratories

4.0 Revision History:

4.1 Revision history table:

Document Number	CC Number/Date	Brief Description of Change



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ANNEXURE-I

Molarity Calculation format of Volumetric Solution Perchloric Acid 0.1 M

S. No.	Date	Qty. Prep.	Batch no.	Primary Std. ID. No.	Primary Std. Weight	Calculation	RSD NMT 0.2%	Mean Molarity	Date of Standardization.
1.									
2.									
3.									

Prepared By (Sign/Date):

Checked By (Sign/Date):